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Sterilox (Project 04-33) (6/05)



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Sterilox™ is a dental unit waterline treatment product that is produced in-office by adding the Sterilox™ Proprietary Electrolyte Solution to the Sterilox™ generator. The small countertop Sterilox™ generator (12.7" X 8.11" X 15") reportedly houses a proprietary electrochemical cell that produces the Sterilox™ solution (hypochlorous acid) through an electrolysis process. The power supply is adaptable for power outlets from 100 to 240 volts. After the Sterilox™ solution is generated; chlorine test strips are dipped into the solution to ensure free chlorine levels are between 180–260 ppm. Each time the dental unit water bottle is filled, a small amount of Sterilox™ solution is added and then diluted with water to provide continuous dental unit waterline cleaning. Unused Sterilox™ solution may be refrigerated for up to 48 hours in a sealed container (). According to Ultradent, Sterilox™ solution is a safe, non-toxic, bactericidal, fungicidal, tuberculocidal, virucidal and sporicidal germicide. The manufacturer also reports that the Sterilox™ solution can be used as a hard surface disinfectant with a 15-minute contact time.



Manufacturer:

Sterilox Technologies, Inc.
320 King of Prussia Road, Suite 200
Radnor, PA 19087
(866) 604-1879
www.sterilox.com

Distributor:

Ultradent Products, Inc.
505 West 10200 South
South Jordan, UT 84095
(800) 496-8337
(801) 842-9024 FAX
www.ultradent.com

Suggested Retail Price:

\$3999.00 Sterilox™ Generator
Four 1-gallon bottles of electrolyte solution
1 bottle of free chlorine check strips
Medical-grade silicone uptake tubes
\$99.99 Four 1-gallon bottles of electrolyte solution

Government Price:

\$3000.00 Sterilox™ Generator
Four 1-gallon bottles of electrolyte solution
1 bottle of free chlorine check strips
Medical-grade silicone uptake tubes
\$85.00 Four 1-gallon bottles of electrolyte solution

ADVANTAGES:

- + Produced water meeting or exceeding EPA standards (i.e., ≤ 500 CFU/mL)
- + Simple technique for chairside staff members
- + Provides continuous cleaning of dental unit waterlines

- + No plumbing or filter changes required
- + Can be used with either tap or distilled water
- + Eliminates the need for nightly air purging of waterlines
- + Less likely to damage dental unit components than bleach
- + User-friendly instructions
- + No offensive odor or taste noted
- + No clogging of dental unit waterlines or residue noted
- + Less expensive than currently available waterline treatment products (after initial equipment purchase)

DISADVANTAGES:

- Necessary to check free chlorine levels of Sterilox™ solution before use and after storage
- Dispensing system not as user friendly as currently available waterline treatment products

SUMMARY AND CONCLUSIONS:

Sterilox™ is a continuous use dental unit waterline treatment product that is generated in-office using the Sterilox™ generator and a Proprietary Electrolyte Solution. The instructions were highly rated and the clinical evaluators found the product easy to use in the dental operatory. One clinic found the initial set-up and maintenance of the Sterilox™ generator to be time consuming, especially the steps involved with checking the chlorine levels. Also, users would have preferred a more convenient method to dispense the Sterilox™ solution to the dental unit water bottles (currently Ultradent provides a graduated measuring cup). During the eight-week evaluation period there were no complaints of an offensive odor or taste, and all dental unit water samples met the EPA standard of 500 CFU/mL or less. During the electrical safety testing, one of the three units tested at a level that called for extra precautions (e.g., ensuring the grounding conductor is intact, establishing a documented maintenance schedule). To avoid having biomedical engineering technicians perform more frequent maintenance checks, Ultradent provided an isolation transformer to correct the situation, which if necessary, is available upon request for \$500.00. The product received high ratings by the clinical evaluators. **Sterilox™** is rated **Excellent** for use in USAF dental facilities.

UPDATE Sterilox™ and its accompanying products will no longer be supplied through Ultradent Products, Inc. Please contact Sterilox Technologies for information about the Sterilox™ products. Suggested retail/government pricing is \$3299.00 for the Sterilox Generator and four 1-gallon bottles of electrolyte solution; \$18.50 for 1 bottle of free chlorine check strips; and \$75.00 for four 1-gallon bottles of electrolyte solution. Government pricing is not available.